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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO. |
|---|-------------|----------------------|--------------------------------|------------------|
| 10/067,840  | 02/08/2002  | Shigeo Muramatsu     | 219282US3                      | 9559             |
| 22850   | 7590        | 12/10/2004           |                                |                  |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      | EXAMINER<br>TUGBANG, ANTHONY D |                  |
|   |             |                      | ART UNIT<br>3729               | PAPER NUMBER     |

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/067,840

Applicant(s)

MURAMATSU ET AL.

Examiner

A. Dexter Tugbang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/13/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. The applicant(s) amendment filed on 9/2/04 has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The rejections below are maintained and hereby repeated below for the applicant(s) convenience.

***Claim Rejections - 35 USC § 103***

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al 6,011,239 in view of JP'449.

Regarding Claim(s) 1 and 4, Singh et al discloses a method of fabricating a magnetic head apparatus comprising: affixing a wiring on a face of a head supporting member (suspension assembly 10) before bending a load beam 14; bending the load beam to a certain angle (see col. 3, lines 23-27); and mounting a magnetic head (slider 18) to an end portion of the head supporting member 10.

Regarding Claim(s) 2, 3, 5 and 6, Singh further teaches that, after the initial bending of the load beam, carrying out a springback preventive treatment by using multiple temperature annealing treatments, i.e. low and high, with an apparatus (shown in Fig. 6) to locally heat and cool particular areas 122, 114, 118, 119 of the head supporting member through the use of a laser. The heating of the laser and the cooling of the material of the head supporting member

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causes the head supporting member to bend (see col. 6, line 40 to col. 7, line 10) and this bending can be read as “springback”.

It is noted that Singh further suggests that the wiring is affixed to the face of the head supporting member prior to the use of the laser apparatus or prior to the multiple heating or low and high temperature annealing treatments. The use of the laser to locally heat the head supporting member prevents damage to the wiring and magnetic head (see col. 2, lines 23-27) in which this damage prevention can be read as not influencing the function of the wiring.

In summary above, Singh teaches substantially all of the limitations of the claimed method except that Singh does not say whether or not the wiring is “flexible” such that it can be called a “flexible wiring”.

JP’449 teaches that flexible wiring 44 (in Fig. 2 and 4) affixed to head supporting members is conventional, old and notorious well known in the manufacturing arts of magnetic heads. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the wiring of Singh by having the wiring “flexible”, as taught by JP’449, for at least the advantages of allowing the wiring to flex or bend with head supporting member and provide electrical current to the magnetic head during operation.

#### ***Response to Arguments***

4. Applicant's arguments filed 9/4/04 have been fully considered, but have not been deemed to be found as persuasive.

In regards to the merits of the prior art above, the applicant(s) believe that neither Singh et al nor JP’449 teach, “affixing a flexible wiring...member” (lines 3-5 in Claim 1 with similar

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limitations in Claim 4). The applicant(s) are placing a great deal of emphasis on the term of “wiring” in that Singh does not teach any wiring whatsoever.

The examiner most respectfully disagrees. The aspect of bending the load beam is relied upon in Singh in which Singh teaches that bending of the load beam 14 to a certain angle occurs after heating, such as heating with a laser apparatus (see col. 3, lines 23-27 and col. 6, lines 58+). Included with load beam is the head supporting member (suspension assembly 10). However, prior to this bending, i.e. localized heating, the slider along with its associated “wiring”, is affixed to the head supporting member 10 and load beam 14. Singh explicitly uses the term “wiring” in the passage at col. 2, lines 24-26. Thus, Singh does indeed teach “wiring” that is associated with the magnetic head (slider 18) and affixed to the head supporting member. Furthermore, the head supporting member must have “wiring” affixed to it with the load beam in order for the magnetic head to even operate. No wiring would mean that the magnetic head would not have any electrical current.

The examiner maintains that to make the wiring flexible such that it can called “flexible wiring”, would be obvious in view of JP’449 for the associated advantages therewith. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

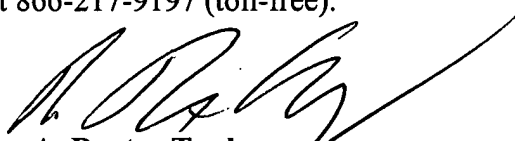
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**A. Dexter Tugbang**  
**Primary Examiner**  
**Art Unit 3729**

December 6, 2004